# Employment Sponsored Training among Recent Immigrants

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September 30, 2002

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# I. Introduction

Demographic pressures of an aging population, declining fertility, and a growing concern over skill shortages underscore the importance of immigrants to Canada's labour force and economic prosperity. According to the 1996 Census, immigrants make up one out of every five labour force participants, and recent immigrants (those arriving in Canada within 10 years of the 1996 Census year) account for six percent of the labour force. Given settlement patterns, immigrants are especially prevalent within certain provincial and urban markets. In Ontario for instance, nearly one in ten (9%) labour force participants is a recent immigrant. In Toronto, the most common immigrant destination, 18 per cent of the labour force is comprised of recent immigrants. Immigration is now the major contributor to Canada's net labour force growth, and in the coming years is expected to account for all of Canada's net labour force growth.

As a prominent and growing segment of the Canadian workforce, it is crucial that the human capital potential of immigrants — and indeed, of all working-age Canadians — be fully utilized and developed. One important way of doing this is through employer-sponsored training. Findings from the 1998-99 Workplace and Employee Survey (WES) show that employer-sponsored training is indeed a common experience among employees, with 55 per cent having received classroom or on-the-job training over a 12 month period (Leckie, et al, 2001). The prevalence of workplace training is not surprising. The Canadian Labour and Business Centre recently surveyed 1,145 senior level managers and labour leaders about the actions that will be most important in addressing the skill requirements of their respective organizations in the coming years. "Upgrading the skills of current employees" was the action most commonly cited as very important (CLBC, 2002).

Given the growing prominence of immigrant labour, the importance of workplace training, and the policy objective of supporting and promoting life-long learning among all Canadians, it is important to know whether and to what extent recent immigrants have access to and participate in employer-sponsored training.

Understanding patterns of employer-sponsored training among recent immigrants is important for several reasons. First, recent immigrants are ethnically diverse and from a variety of source countries. For many, English or French is a second language, and real or perceived language deficiencies in language proficiency could act as a barrier to participation in workplace training. Second, many immigrants with foreign obtained credentials and skills encounter difficulties having their qualifications and experience recognized in Canada. This too could act as a barrier to employer-sponsored training if unrecognized qualifications fail to meet training or course prerequisites. Third, recent immigrants are experiencing less labour market success than earlier immigrant cohorts (HRDC, 2002). Access to and participation in employer-sponsored training could expedite and improve labour market integration.

Until recently however, national survey data on the training activities of immigrants has been unavailable[1]. The primary purpose of this paper then, is to use the 1998-99 Workplace and Employee Survey (WES) to examine the extent of employer-sponsored training received by recent immigrants, and how this differs from earlier immigrants and the Canadian-born population. The results here show that recent immigrants, despite having higher levels of educational attainment, are less likely to receive employer-sponsored training than their Canadian-born counterparts. The paper also seeks to determine whether this pattern holds up after controlling for a number of factors known to influence training participation rates. Again, the results of a multivariate logistic regression analysis demonstrate that even after controlling for a variety of job and workplace characteristics, recent immigrant status is still associated with lower participation rates in employer-sponsored training.

In what follows, Section II provides a brief discussion of data source and definitions. Sections III and IV examine employee participation rates in employer-sponsored training in relation to a number of demographic and job-related characteristics. Section V explores further the impact of language and skills under-utilization on training. Section VI examines whether the lower levels of participation in employer-sponsored training result from a greater propensity to refuse training when it is offered. The findings show that to the contrary, recent immigrant employees are less likely than Canadian-born employees to refuse training. They further demonstrate their interest in training through higher rates of participation in career and job-related training not sponsored by the employer. The concluding Section VII provides a discussion of the implications of the research findings and areas for further research. The results of a logistic regression analysis are included as an Appendix. Throughout the main body of the paper, findings are presented through the use of simple bivariate analysis, with reference to the more robust findings of the multivariate analysis.

## II. Data source and Definitions

The data source for this research is the employee component of the 1998-99 WES. It is important to note that the survey only includes employees in workplaces selected within the employer component of WES, which targeted all business locations operating in Canada and having paid employees. Excluded from the employer component target population are employers in Yukon, Northwest Territories and Nunavut, and employers operating in crop production and animal production; fishing, hunting and trapping; private households and public administration. As a result, recent immigrants who are not in the labour force, unemployed or employed in non-targeted sectors and jurisdictions, are not represented in the analysis. In addition, the WES employee sample was not specifically designed to represent sub-components of the population such as recent immigrants. For a variety of reasons, including language, recent immigrant employees may have been more likely to refuse to participate in the survey. It is therefore difficult to know whether the WES sample of recent immigrants accurately reflects the actual

[1] The 1994 and 1998 Adult Education and Training Surveys do not include information on immigrant status or period of immigration.

population of recent immigrants employed within the targeted business locations. This should be considered a limitation of the research.

Two of the central variables used in this analysis are Immigrant Status and Employer-sponsored training. The former consists of three categories: "recent" immigrants (defined as those who immigrated to Canada in the period spanning 1989 through March 1999); "earlier" immigrants (referring to those who immigrated before 1989); and Canadian-born. Throughout the paper, although findings are presented for earlier immigrants, the focus of the text discussion is on the comparison of recent immigrants to the Canadian-born

Employer-sponsored training includes classroom and on-the-job workplace training paid for or otherwise subsidized by the employer. Definitions of other variables used in the analysis are either self-evident or if warranted, are described as they are presented in the paper.

## III. Participation in Employer-Sponsored Training

A distinguishing feature of the recent immigrant population relative to the Canadian-born population is their relatively higher level of educational attainment (HRDC, 2002; Informetrica, 2001). The WES data confirm this, showing that recent immigrant employees are twice as likely as Canadian-born employees to have a university degree (36% compared with 18%)[2]. The WES data also show that the percentage of recent immigrants with some form of post-secondary credential, including a degree, diploma, or trade certificate is also higher than found among the Canadian-born (63% compared with 50%).

Higher levels of education *should* bode well for recent immigrants in terms of employer-sponsored training, as numerous studies have shown education to be an important determinant of training. In his analysis of the 1994 Adult Education and Training Survey (AETS), Jennings found that "among the few determinant that increase both the incidence and the duration of employer-sponsored training, educational attainment appears to be of major importance". The positive association between educational attainment and employer sponsored training has been substantiated in more recent analysis of the 1998 AETS (Statistics Canada and HRDC, 2001) and the 1998-99 WES (Leckie, et al.).

However, recent immigrants, despite having higher levels of education, are *less* likely to receive employer-sponsored training, whether in the form of classroom training or on-the-job training (Table 1). Simple bivariate analysis shows that the lower incidence of employer-sponsored training among recent immigrants is evident among males and females, younger and older workers, and among those with and without post-secondary education. Having said that, the differences in relation to the Canadian-born are more pronounced among men, older workers and those without post-secondary education. For

[2] The WES estimates compare quite favourably with Citizenship and Immigration Canada administrative data. Between 1995 and 2000, 35% of landed immigrants aged 15 and over had a university degree at the time of landing (see HRDC, 2002).

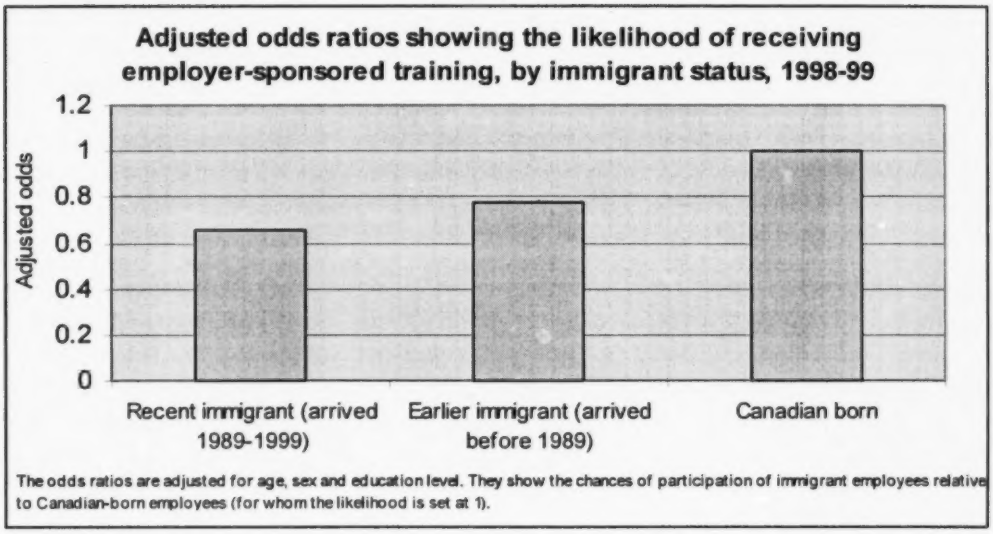
example, among employees without post-secondary education, the training participation rate is 16 percent age points (or 47%) higher among Canadian-born employees than among recent immigrants (35% compared with 51%). Possession of a post-secondary education increases the training participation rate for both recent immigrants (to 55%) and the Canadian-born (to 62%), reducing, but not eliminating the difference between the two groups. Controlling for age sex and educational attainment, Figure 1 shows that the likelihood of receiving employ-sponsored training is lower among recent immigrants.

**Table 1**
**Employee Participation Rate in Classroom, On-the-Job, and Total Employer-Sponsored Training by Sex, Age, Education, and Immigrant Status, 1998-1999**

| | Recent immigrants | Earlier immigrants | Canadian-born | Total |
|---|---|---|---|---|
| Classroom Training | 31.8 | 33.5 | 37.7 | 36.9 |
| Male | 30.1 | 33.8 | 37.5 | 36.7 |
| Female | 33.7 | 33.2 | 37.8 | 37.1 |
| Age under 45 | 35.6 | 32.8 | 38.7 | 37.6 |
| 45 and over | 26.1 | 36.2 | 36.1 | 35.7 |
| No post-secondary education | 18.2 | 23.1 | 30.2 | 29.0 |
| Post-secondary certificate /degree | 39.9 | 41.8 | 45.1 | 44.0 |
| On-the-job Training | 25.3 | 25.9 | 30.8 | 29.9 |
| Male | 22.2 | 24.3 | 29.3 | 28.4 |
| Female | 28.8 | 27.4 | 32.1 | 31.3 |
| Age under 45 | 22.5 | 24.9 | 28.6 | 27.8 |
| 45 and over | 29.7 | 30.1 | 34.1 | 33.6 |
| No post-secondary education | 23.4 | 19.2 | 29.4 | 27.9 |
| Post-secondary certificate /degree | 26.5 | 31.3 | 32.2 | 31.8 |
| All Employer Sponsored Training | 47.7 | 47.6 | 56.3 | 54.8 |
| Male | 42.6 | 47.4 | 54.5 | 53.1 |
| Female | 53.2 | 47.8 | 57.9 | 56.3 |
| Age under 45 | 48.8 | 46.2 | 55.1 | 53.4 |
| 45 and over | 45.9 | 53.4 | 58.0 | 57.1 |
| No post-secondary education | 34.5 | 36.8 | 50.6 | 48.4 |
| Post-secondary certificate /degree | 55.4 | 56.3 | 61.9 | 60.8 |

Source: employee component, Workplace and Employee Survey (1998-99)

**Figure 1**


Adjusted odds ratios showing the likelihood of receiving employer-sponsored training, by immigrant status, 1998-99
Adjusted odds
1.2
1
0.8
0.6
0.4
0.2
0
Recent immigrant (arrived 1989-1999)
Earlier immigrant (arrived before 1989)
Canadian born
The odds ratios are adjusted for age, sex and education level. They show the chances of participation of immigrant employees relative to Canadian-born employees (for whom the likelihood is set at 1).

Recent immigrants make up a growing share of the labour force, and as a group, bring with them relatively high levels of educational attainment. Despite this, they are less likely than the Canadian-born population to receive employer sponsored training. While the differences in training participation rate are not always large, they are consistent across age, sex and education. In the following section, we examine whether the effects of immigration status remain after controlling for a number of job-related characteristics known to affect the rate of employer-sponsored training

## IV. Job Related Determinants of Employer-Sponsored Training

Previous research has identified a number of job related determinants of employer-sponsored training. These include occupation, unionization, firm size and tenure (Jennings, 1996). More recent analysis using the WES have considered other job-related factors such as computer use on the job and the permanent / non-permanent terms of employment (Leckie et al, 2001).

One reason the incidence of employer-sponsored training may be lower among recent immigrants is if, as a group, they are disproportionately located in the kinds of jobs in which training is less likely to be provided. For this analysis, the central question is whether differences in training participation rates exist after controlling for these factors.

**Table 2**

**Employee Participation Rate in Employer Sponsored Training by Immigrant Status and Selected Job Characteristics, 1998-99**

| | Recent immigrants | Earlier immigrants | Canadian born | Total |
|---|---|---|---|---|
| Occupation | | | | |
| Managers | 50.9 | 52.3 | 62.3 | 60.5 |
| Professionals | 63.8 | 61.9 | 69.4 | 68.0 |
| Technical/trades | 44.6 | 42.3 | 53.2 | 51.4 |
| Marketing/sales | 44.1 | 30.8 | 44.8 | 43.1 |
| Clerical/administrative | 50.3 | 48.8 | 55.7 | 54.7 |
| Production workers – no trade | 24.8 | 44.0 | 45.9 | 44.6 |
| Tenure | | | | |
| 2 years or less | 49.7 | 50.8 | 58.0 | 56.7 |
| 2 to 5 years | 49.9 | 46.9 | 56.2 | 54.7 |
| 6 to 10 years | 39.8 | 45.3 | 55.0 | 52.8 |
| more than 10 years | na | 47.5 | 55.4 | 54.1 |
| Part-time / Full-time | | | | |
| Part-time | 45.2 | 49.7 | 47.3 | 47.5 |
| Full-time | 48.0 | 47.3 | 57.9 | 56.1 |
| Terms of Employment | | | | |
| Non-permanent | 31.7 | 42.7 | 43.2 | 42.7 |
| Permanent | 49.2 | 48.1 | 57.7 | 56.0 |
| Computer | | | | |
| Use computer | 59.4 | 57.2 | 64.8 | 63.6 |
| Does not use computer | 31.7 | 32.5 | 42.9 | 41.1 |
| Collective Agreement | | | | |
| Covered | 48.3 | 46.8 | 60.2 | 58.3 |
| Not covered | 47.5 | 47.9 | 54.7 | 53.4 |
| Size (no. of employees) | | | | |
| Fewer than 20 | 30.6 | 34.5 | 45.5 | 43.6 |
| 20-99 | 47.6 | 54.3 | 54.8 | 54.5 |
| 100-499 | 58.4 | 52.0 | 63.5 | 61.4 |
| 500+ | 63.6 | 52.3 | 68.1 | 65.7 |

Source: employee component, WES 1998-99.

To answer this question, Table 2 presents the rates of participation in employer-sponsored training by a number of selected job-related characteristics. The results show that the impact of the various factors on the incidence of employer-sponsored training is of the same nature, whether one considers the recent immigrant, early immigrant or Canadian born populations. As an illustration, training participation rates are

considerably higher among employees in large firms compared to smaller firms. This is evident among the recent immigrant and Canadian-born populations. However, simple bivariate controls show that *within* larger firms, recent immigrant employees are less likely than Canadian-born employees to participate in employer-sponsored training. And within smaller firms, they are also less likely to receive employer-sponsored training. Indeed, within every category of all seven dimensions shown in Table 2, the incidence of training is lower among recent immigrants. Moreover, multivariate logistic regression shows that immigrant status continues to have an independent effect on training incidence (see Appendix Table 1, Model 2).

## V. Other Factors affecting participation in employer sponsored training

Existing research on the determinants of employer-sponsored training and adult education more generally has identified numerous and often complex phenomenon that can affect participation in training. Sussman (2002) for instance, suggests that there are three types of barriers to job-related training. First, situational barriers may arise from one's situation in life, and include having enough time or money for training. Second, institutional barriers can take the form of high tuition fees, entrance requirements and availability of programs. Finally, dispositional barriers can result from individual attitudes about learning. On this latter type, and in a similar fashion, Kapsalis (1996) suggests that employee demand for training play an important role in determining whether or not training is received. In addition, we are only beginning to understand the linkages between organizational change and training. Betcherman, Leckie and McMullen (1997) state that workplace training is often triggered by some event and is of an episodic nature. So for example, when an organization undergoes change (adoption of new technologies or work processes for instance) the need for new or updated skills can give rise workplace training.

Recognizing the importance of such factors, it is beyond the scope of this research to consider them in the analysis. Instead, this section looks at two issues that may be of particular concern to recent immigrants. These are the issues of under-utilization of immigrant skills, and language.

Under-utilization of immigrant skills

Using data from the 1996 Census, Informetrica Ltd. examined the relationship between level of educational attainment and job skill requirements among recent immigrants. They concluded that the jobs of recent immigrants require lower skills than the jobs of the Canadian born. Moreover, this difference was apparent even among those with post-secondary education: "Almost three-quarters of Canadian-born men with a university degree have a job requiring a university education (73%). But only about one-half of the jobs of recent immigrants with a university degree are at that level (53%)" (Informetrica, 2001: 64).

The WES data support the notion of a "mis-match" between educational attainment and job skill requirements. Respondents in the WES were asked to indicate their level of

educational attainment as well as the minimum education required to do their jobs. If their level of education exceeded the minimum requirements, they were deemed, for the purposes of this analysis to be "over-qualified", and not fully utilizing their attained skills. If, on the other hand, their educational attainment was below that required for the job, they were deemed to be "under-qualified."

As Table 3 shows, nearly one-half (48%) of recent immigrants have education levels that exceed what they reported as the minimum education required for the job. In contrast, just over one-third (35%) of Canadian-born employees were "over-qualified". The "educational / job skills mis-match" of immigrants likely stems, at least in part, from difficulties having foreign obtained credentials and work experience recognized and valued in the Canadian context.

The second panel of Table 3 shows that it is the "over-qualified" who are least likely to receive employer-sponsored training. The obvious, but still speculative interpretation of this is that over-qualified employees are less likely to require training, as they are able to draw upon already accumulated human capital. The problem for recent immigrants of course, is that relative to the Canadian-born, they are *disproportionately* over-qualified. Moreover, over-qualified recent immigrant employees are less likely than over-qualified Canadian-born to participate in employer-sponsored training.

In short, what starts out as an under-utilization of skills could result in further skills atrophy as those skills are not used, or to a "falling behind" in expertise and job knowledge since they are not keeping up to date with innovative practices commensurate with their training and qualifications. In either case, the under-utilization of immigrant skills could expand through reduced opportunity for employer-sponsored training.

**Table 3**

**Educational Attainment in relation to Education Required for the Job, by Immigrant Status**

| | Recent immigrants | Earlier immigrants | Canadian born | Total |
|---|---|---|---|---|
| | Distribution (%) | | | |
| Under-qualified | 8.7 | 12.9 | 15.4 | 14.8 |
| Attainment matches minimum required | 43.1 | 49.3 | 49.6 | 49.3 |
| Over-qualified | 48.2 | 37.8 | 35.0 | 35.9 |
| | 100.0 | 100.0 | 100.0 | 100.0 |
| | Incidence of employer-sponsored training (%) | | | |
| Under-qualified | 44.9 | 49.8 | 57.5 | 56.3 |
| Attainment matches minimum required | 53.9 | 47.4 | 59.0 | 57.3 |
| Over-qualified | 42.6 | 47.1 | 51.8 | 50.6 |

Source: employee component, WES 1998-99.

Language

Lower levels of proficiency in one of Canada's two official languages may also act as a barrier to participation in employer-sponsored training. It may be a situational barrier in the sense that official language skills can improve after landing. It may also be an institutional barrier to the extent that training programs may only be available in English or French. Finally, proficiency with official languages may be a dispositional barrier insofar as it affects one's perception of oneself as a learner. Unfortunately, the WES does not have a measure of official language proficiency. However, it does include language spoken most often at home. In the absence of a more direct measure, this will be used as a (very crude) measure of official language ability, recognizing the serious limitations of this measure.

It would appear that language is indeed an important consideration as recent immigrants who most often speak English or French at home have levels of employer-sponsored training in-line with those found among the Canadian-born population (Table 4). This is also apparent in the logistic regression analysis. Once language spoken at home and the education/job match variable are introduced into the regression model (see Appendix Table 1, Model 3), the negative effect of immigrant status on employer-sponsored training declines (from an odds ratio of .66 to .77). In other words, recent immigrants are still less likely to receive training, but not to the same extent when these two factors are taken into consideration.

**Table 4**

**Employee Participation in Employer Sponsored Training by Language Used at Home, Recent Immigrants**

| | |
|---|---|
| Recent Immigrants by language most often spoken at home | |
| English | 55.2 |
| French | 58.3 |
| Other | 43.1 |
| Canadian-born | 56.3 |

Source: employee component, WES 1998-99.

## VI. Participation in Career Development (not employer-sponsored)

Perhaps one of the reasons that the incidence of training is lower among recent immigrants is that they are more likely to refuse training when offered. WES respondents were asked: "In the past 12 months, was there job-related training offered to you that you decided not to take? The findings show that to the contrary, recent immigrant employees are less likely than Canadian-born employees to refuse training (Table 5). They further demonstrate their interest in training through higher rates of participation in career and job-related training not sponsored by the employer (Table 6).

**Table 5**

**Training Refusal rate by Immigrant status**

| | Recent immigrants | Earlier immigrants | Canadian born | Total |
|---|---|---|---|---|
| % offered but refused job-related training | 7.1 | 10.2 | 10.0 | 9.9 |
| Did not receive training | 4.6 | 5.6 | 6.8 | 6.5 |
| Did receive | 9.9 | 15.4 | 12.6 | 12.8 |

Source: employee component, WES 1998-99.

**Table 6**

**Employee Participation Rate in Training by type and by Immigrant Status**

| | Recent immigrants | Earlier immigrants | Canadian born | Total |
|---|---|---|---|---|
| Employer Sponsored Training | 47.7 | 47.6 | 56.3 | 54.8 |
| Career Related Training (not employer sponsored) | 12.0 | 8.4 | 9.1 | 9.1 |
| All Training | 52.9 | 51.7 | 59.9 | 58.5 |

Source: employee component, WES 1998-99.

## VII. Conclusion

The research presented in this paper shows that recent immigrant employees are less likely than the Canadian-born to receive employer sponsored training, even after controlling for several job-related factors known to affect the incidence of training. However, two key factors, language and the match between educational attainment and job skill requirements reduce the negative impact of recent immigrant status on training

participation rates. This suggests that efforts to address and overcome language-related barriers to training, and to more accurately assess and locate immigrants within jobs commensurate with their human capital would improve their prospects for on-going skills development. At the policy level, it means greater efforts to improve the labour market integration of immigrants through Prior Learning Assessments and official language training initiatives would likely improve immigrant prospects for employer-sponsored training.

In recent years, immigration policies have had a sharper focus on increasing the pool of available skilled labour in Canada. As a group, today's immigrants have higher levels of educational attainment than previous generations of immigrants, and levels that exceed those found among the Canadian-born population. Given current population demographics of an aging workforce and the competitive advantages of a highly skilled workforce, Canada can ill afford to waste the human capital potential of new Canadians. This applies equally to immigrants in possession of higher education, as well as less advantaged workers.

This research is a first step at understanding the relationship between immigrant status and participation in training, and there are clearly numerous additional research questions to be answered. The determinants of training involve a complex array of factors, and more needs to be done to understand why immigrants are less likely to receive employer sponsored training. Further work on the issues of language proficiency and credentials recognition is necessary. Does lack of credentials recognition act as a barrier to further training?

Additional research should also seek to understand the impact of employer sponsored training on labour market outcomes of recent immigrants. Using WES longitudinal data, it will be possible to assess the extent to which new immigrants who receive training achieve faster and better success.

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**Appendix A**

**Determinants of Employee Participation in Employer Sponsored Training – A Logistic Regression Analysis**

*Dependent and Independent Variables*

The dependent variable, participation in employer-sponsored training, is a dichotomous variable distinguishing employees who had not received e oyer-sponsored training from those who had received either employer-sponsored c room training and/or on-the-job training. Fifty-five per cent of employees receive employer-sponsored training and 45 per cent did not.

The independent variables under consideration were placed into one of three blocks, and entered into the regression hierarchically. Model 1 includes the basic demographic characteristics: immigrant status (distinguishing between employees born in Canada, recent immigrant employees who arrived between 1989 and 1999, and immigrant employees who arrived in Canada before 1989), sex, age group, and educational attainment. Characteristics associated with the employee's job or workplace are included in the second model, including occupation, job tenure, full-time part-time status, terms of employment (permanent, non-permanent), use of computer on the job, coverage by a collectively bargained agreement, and workplace size (number of employees). In the final model, three additional variables were added. The first — skill requirements — distinguishes between employees who did and did not report that the overall skill requirements of their job had increased since they began working in their current job. The second — education-job match — distinguishes between employees whose highest level of educational attainment matches the self-reported minimum level of education necessary to do their job, from those who attainment is higher than the job requires ("over-qualified"), and those whose education is lower than the job requires ("under-qualified"). The third and final variable is language most often used at home. This distinguishes employees who use either French or English at home from those who use a language other than French or English at home. The type of contrast used is SIMPLE method in which each category of the variables (except the first) is compared to the first (reference) category.

In the Table showing the results of the regression, odds ratios are presented, but only for those variables found to be statistically significant at the $p<.01$ level. The odds ratio exp(B)) gives the odds of respondents receiving employer-sponsored training given one category of an independent variable compared to the reference category, while controlling for the effects of all other variables in the model. For example, the odds ratio for workplace size (500+ employees) is 2.35. This implies that the odds of receiving employer-sponsored training are more that twice as large for employees in workplaces with 500 or more employees as they are for employees in workplaces with fewer than 20 employees (reference category).

**Appendix Table 1**
**Logistic Regression: Factors Affecting the Receipt of Employer-Sponsored Training, 1998-99**

| | Model 1 | | | Model 2 | | | Model 3 | | |
|---|---|---|---|---|---|---|---|---|---|
| Independent Variable | B | S.E. | Odds Ratio | B | S.E. | Odds Ratio | B | S.E. | Odds Ratio |
| Immigration Status *(Canadian-born = reference)* | | | | | | | | | |
| Recent immigrant | -.410 | .072 | .66 | -.418 | .076 | .66 | -.266 | .087 | .77 |
| Early Immigrant | -.255 | .041 | .78 | -.248 | .043 | .78 | -.183 | .047 | .83 |
| Gender *(Male = reference)* | | | | | | | | | |
| Female | .149 | .027 | 1.16 | 0.61 | .031 | -- | 0.74 | .031 | -- |
| Age *(Under 45 = reference)* | | | | | | | | | |
| 45 and over | .207 | .028 | 1.23 | .225 | .032 | 1.25 | .233 | .032 | 1.26 |
| Education *(no post-secondary = reference)* | | | | | | | | | |
| Post-secondary certificate /degree | .419 | .027 | 1.52 | .151 | .029 | 1.16 | .206 | .034 | 1.23 |
| Occupation *(Production workers = reference)* | | | | | | | | | |
| Managers | | | | .234 | .070 | 1.26 | .122 | .071 | -- |
| Professionals | | | | .313 | .070 | 1.37 | .185 | .071 | 1.20 |
| Technical/trades | | | | .161 | .057 | 1.18 | .095 | .058 | -- |
| Marketing/sales | | | | .196 | .089 | -- | .196 | .090 | -- |
| Clerical/administrative | | | | -.025 | .067 | -- | -.066 | .068 | -- |
| Tenure *(2 years or less = reference)* | | | | | | | | | |
| 2 to 5 years | | | | -.204 | .042 | .816 | -.242 | .042 | .785 |
| 6 or more years | | | | -.282 | .036 | .754 | -.370 | .037 | .691 |
| Part-time / Full-time *(Part-time = reference)* | | | | | | | | | |
| Full-time | | | | .125 | .051 | -- | .081 | .051 | -- |
| Terms of Employment *(Non-permanent = reference)* | | | | | | | | | |
| Permanent | | | | .303 | .053 | 1.35 | .282 | .053 | 1.33 |
| Computer *(does not use computer = reference)* | | | | | | | | | |
| Uses computer at work | | | | .897 | .034 | 2.45 | .776 | .035 | 2.17 |
| Collective Agreement *(not covered = reference)* | | | | | | | | | |
| Covered | | | | .118 | .034 | 1.13 | .122 | .034 | 1.13 |
| Size *(Fewer than 20 employees = reference)* | | | | | | | | | |
| 20-99 | | | | .546 | .037 | 1.73 | .527 | .038 | 1.69 |
| 100-499 | | | | .785 | .040 | 2.19 | .769 | .041 | 2.16 |
| 500+ | | | | .884 | .050 | 2.42 | .856 | .051 | 2.35 |
| Job skill requirements *(Not increased = reference)* | | | | | | | | | |
| Increased | | | | | | | .541 | .029 | 1.72 |
| Job/Education Match *(match = reference)* | | | | | | | | | |
| Under-qualified | | | | | | | .004 | .041 | -- |
| Over-qualified | | | | | | | -.135 | .034 | 874 |
| Language at home *(English/French = reference)* | | | | | | | | | |
| Other language | | | | | | | -.276 | .067 | .759 |

— Odds ratio not shown (not significant at $p<.01$)

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